

Sustrans

The National Cycle Network

Route User Monitoring Report

To End of 2003

Sustrans' Route User Monitoring Programme measures use of the National Cycle Network by cyclists, pedestrians and other users. Data are collected by automatic bicycle counters and manual counts with face-to-face surveys on routes across the UK. This report provides evidence that during 2003 the National Cycle Network was:

Continuing to attract a growing number of users ...

Total use of the National Cycle Network (NCN) more than doubled from 2000 to 2003 when it accounted for 126 million trips.

Leading the growth in cycling across the UK...

Cycle trips on the NCN (excluding new routes) increased by 10% from 2002 to 2003, sustaining the rate of growth in the previous year.

Increasing travel choice for everyday, local trips...

On traffic-free sections of the NCN, nearly a third of all trips were for utility purposes (13% for commuting) and more than half were under 3 miles.

Reducing car traffic...

Nearly one third of trips on the NCN replaced a car trip – meaning as many as 38 million car trips were avoided in 2003.

Encouraging changes in travel behaviour...

Traffic-free NCN routes provided an important resource for novice cyclists (17% of cycling users) and were encouraging more people to cycle more often.

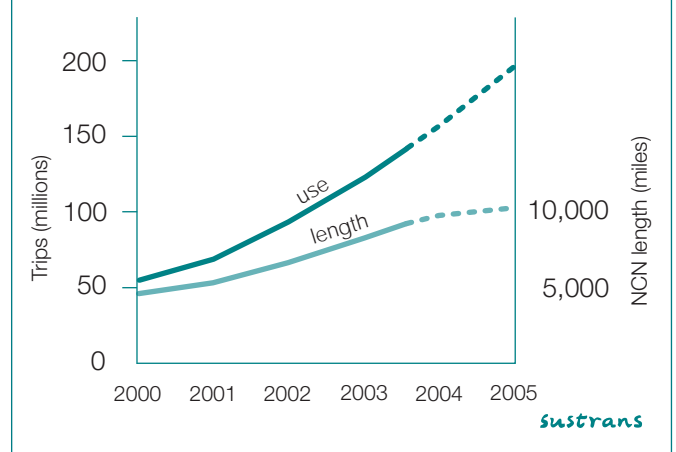
Improving public health through increases in active travel...

Traffic-free NCN routes provided an opportunity for more than two-thirds of users to increase their regular levels of physical activity.

And helping to tackle social exclusion....

Traffic-free NCN routes improved accessibility for more than one in five users who lived in a household without a car.

Figure 1: NCN network length and use 2000 to 2005



Wandle Trail, National Route 22, London

J Bewley



INTRODUCTION

The National Cycle Network

The National Cycle Network (NCN) is a comprehensive network of safe and attractive places to cycle and walk throughout the UK. 8,200 miles of National Routes¹ were opened by the end of 2003, extending to 10,000 miles by 2005. One third is traffic-free, the rest follows quiet lanes or traffic-calmed roads. The NCN is co-ordinated by Sustrans, in partnership with over 450 local authorities and other partners.

The objectives of the NCN are: to provide a high quality cycle route in every town; to encourage growth in cycling and walking for all types of trip; and to be a catalyst for change in transport culture.

CONTINUING GROWTH IN USE OF THE NATIONAL CYCLE NETWORK

Use of the National Cycle Network reaches 126 million trips

- In 2003, the NCN carried 126 million trips by cyclists, walkers and other users
- Of these, approximately 77 million were trips by cyclists and 49 million by pedestrians
- On a like-for-like basis (i.e. not including growth resulting from extensions to the NCN), this represents a year-on-year growth of 10% in the number of cycling trips
- Traffic-free routes (which account for one third of the NCN) were critical to this growth, with 13% year-on-year growth between 2002 and 2003, compared with 6% on on-road sections of the NCN
- During 2003, total open length of the NCN National Routes grew by 18%, leading to a total use increase of 30%, from 97 million trips in 2002 to 126 million trips in 2003

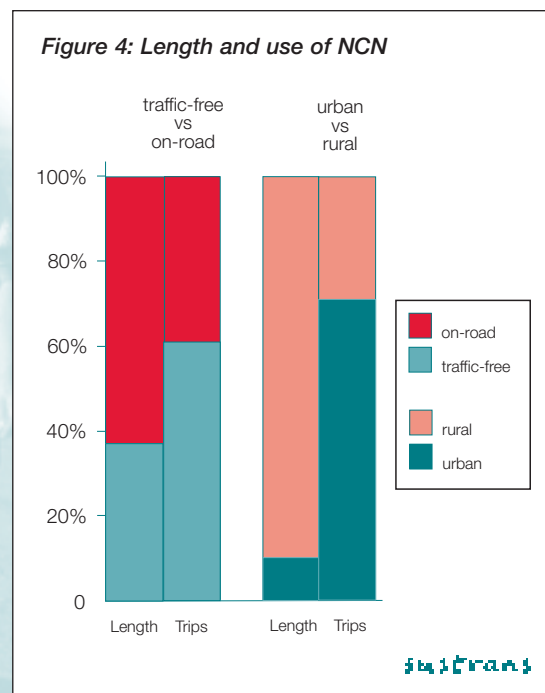
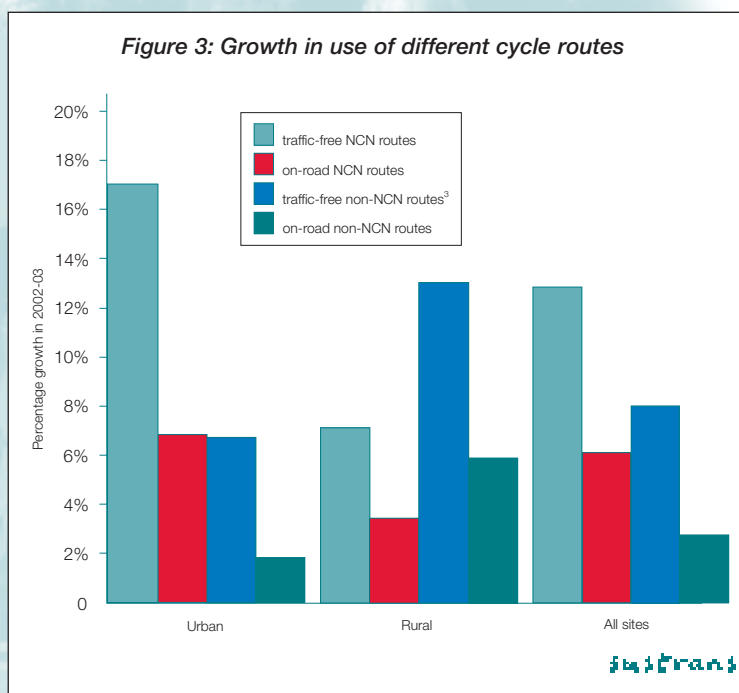
Figure 2: Significant and consistent growth in levels of use on pre-existing sections of the NCN

	1999-2000	2000-2001	2001-2002	2002-2003
Traffic-free	+3%	+4%	+18%	+13%
On-road	-1%	+1%	+6%	+6%
All National Routes	+2%	+3%	+10%	+10%

Sustrans

Strong growth on urban² traffic-free routes

- Sustrans' data show that the highest rates of growth during 2002-03 were recorded on NCN traffic-free routes in urban areas (see Figure 3)
- Around 71% of trips on the NCN are now concentrated on the 15% of routes located in urban areas (see Figure 4)
- Traffic-free routes now account for around one third of the NCN and nearly three quarters (73%) of all trips (see Figure 4)



¹ Does not include mileage for Regional Routes, which are also part of the NCN

² Urban areas are self-contained built-up areas with a population of over 3,000

³ Data on usage of traffic-free non-NCN rural routes are less reliable than those for other route types because of the small sample size (three sites)

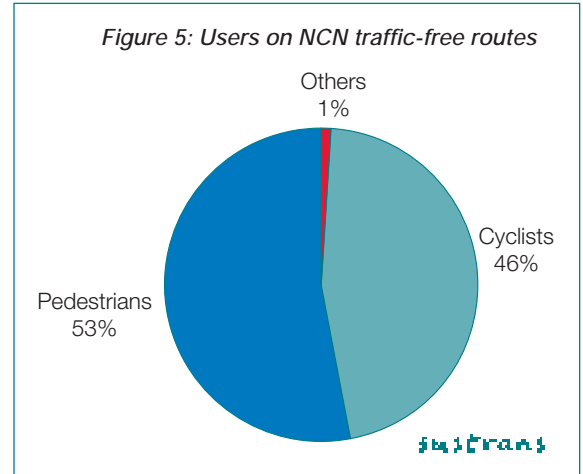
INCREASING TRAVEL CHOICE FOR A RANGE OF USERS

Providing for pedestrians and cyclists

- Observations at survey sites during 2003 showed that traffic-free sections of the NCN attracted slightly more pedestrians than cyclists (see Figure 5)
- The ratio of pedestrians to cyclists shifted from 2000-02 when 48% were pedestrians and 50% were cyclists

Serving all sections of the community

- The overall proportion of users aged under 16 years on NCN traffic-free routes was 26% in 2003 up from 22% during 2000-02
- 33% of cyclists and 48% of pedestrians on NCN traffic-free routes were women
- 3% of users were from minority ethnic groups

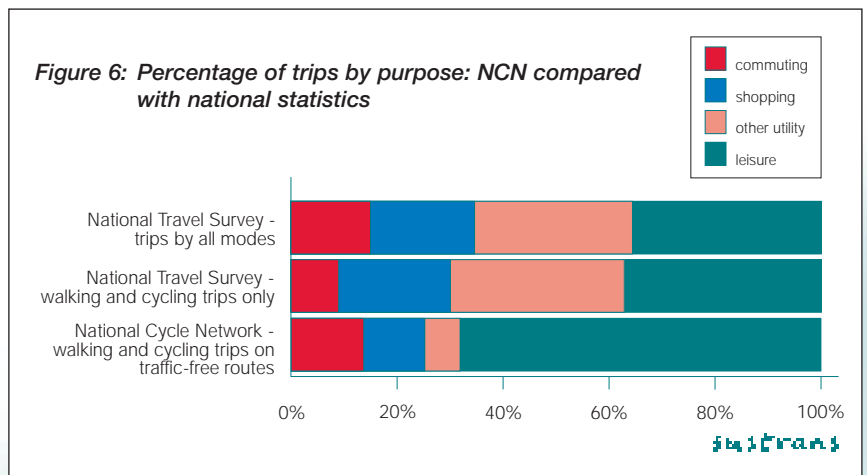


Cramlington, South East Northumberland

In a survey conducted on a traffic-free route close to Cramlington Community High School and Stonelaw Middle School in Cramlington, 69% of the 2,300 users recorded over four days were children. Even discounting the school trips, 41% of route users were children.

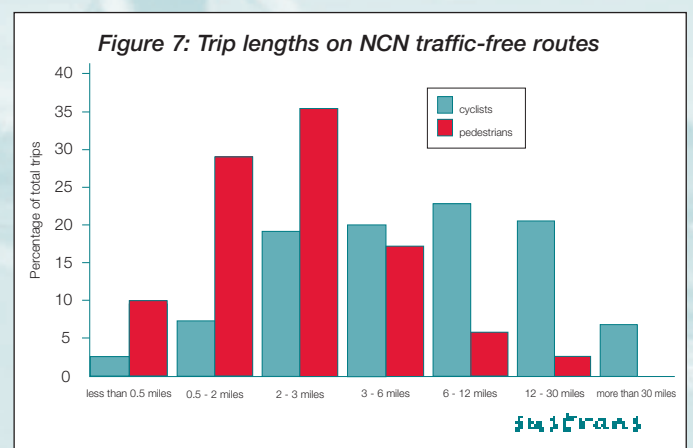
Useful for a wide range of trip purposes

- Sustrans' surveys on NCN traffic-free routes showed that 31% of all trips were for commuting, shopping or other 'utility' purposes⁴ (see Figure 6)
- Among these utility trips, the NCN was particularly useful for the journey to and from work. Commuting accounted for a higher proportion of trips (13%) than is the case for walking and cycling trips nationally (9%)⁵
- The remaining 69% of trips were for a range of leisure purposes⁶, the majority being for recreation
- In urban areas, the use of traffic-free NCN routes for utility purposes was higher still, accounting for 41% of all trips



Providing for local travel as well as some longer distance trips

- Sustrans' surveys on traffic-free NCN routes showed that more than half of all trips were under 3 miles, and the most common trip length was 2 miles, demonstrating the importance of the NCN for local travel (See Figure 7)
- Average trip lengths - particularly for cycling - were skewed by the relatively small proportion of longer trips
- Excluding longer trips over 30 miles, the average length of cycle trips on traffic-free NCN routes was 8 miles
- Excluding longer trips over 6 miles, the average length of walking trips was 2 miles



⁴ Utility trips include commuting, shopping, in course of work, education, school escort, personal business.

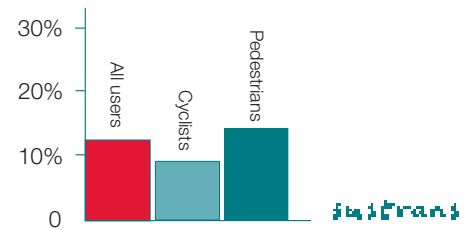
⁵ Department for Transport (2004). National Travel Survey 2002.

⁶ For NCN monitoring purposes 'leisure' includes the following trip purposes: visiting friends/relatives, entertainment/public activity, leisure centre, holiday base, recreation and tourism.

Reducing car use as part of the trip

- In 2003, a minority of people using traffic-free NCN routes made use of a car for part of their trip (12%), down from the previous year (17%) (see Figure 8)
- More pedestrians than cyclists used a car as part of their trip
- The proportion of route users using a car was higher in rural areas (19%) than in urban areas (4%)

Figure 8: Users of NCN traffic-free routes making use of a car for part of their trip



ENCOURAGING CHANGES IN TRAVEL BEHAVIOUR

Promoting modal shift

- 29% of people using traffic-free NCN routes said their trip was replacing a car trip. This equates to a total of around 38 million car trips avoided by users of the NCN as a whole (See Figure 9)



Queens Park, Bedford

During a survey conducted over four days on this traffic-free route, 47% of survey respondents said they could have used a car to make their trip instead of cycling or walking. Of these, 64% were utility trips, of which 23% were commuting trips and 27% were shopping trips. This route provides a safe and direct connection from a largely residential area to the city centre.



Nigel Brigham

Traffic-free routes generate new cycling trips

- Local surveys suggest that cycling trips generated by new routes were primarily new cycling trips, rather than existing trips displaced from other routes⁷



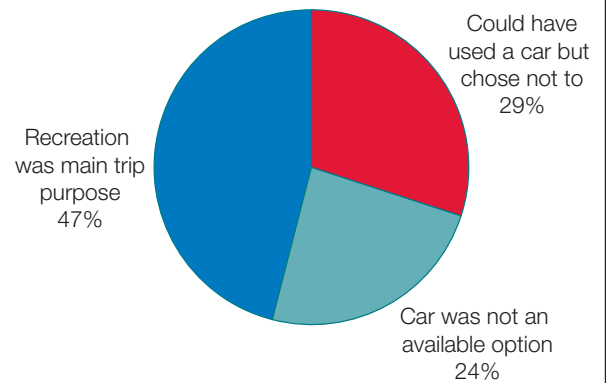
Kesgrave in Suffolk

A new traffic-free route runs parallel to a road already popular with cyclists. Use on the existing road has continued to grow (by 33% between 2001 and 2003), in addition to use on the new traffic-free route. During 2003 an average of 595 cyclists used the two routes every day, 324 on the new route and 271 on the existing road.



Paul Osborne

Figure 9: Travel options of people using NCN traffic-free routes



⁷ Sustrans plans to undertake more detailed analysis in the future of the growth of walking on the National Cycle Network.





Gateshead Millennium Bridge

Manual counts on the Tyne Bridge between Gateshead and Newcastle recorded 286 cyclists crossing the River Tyne on two days in 1998. The exercise was repeated and extended to include the new pedestrian and cyclist only Millennium Bridge in 2003, and the equivalent combined count was 471 cyclists. 186 cycles were counted on the Tyne Bridge, representing a decrease of 35%, but the overall total for 2003 was 65% higher than in 1998.



John Grimshaw

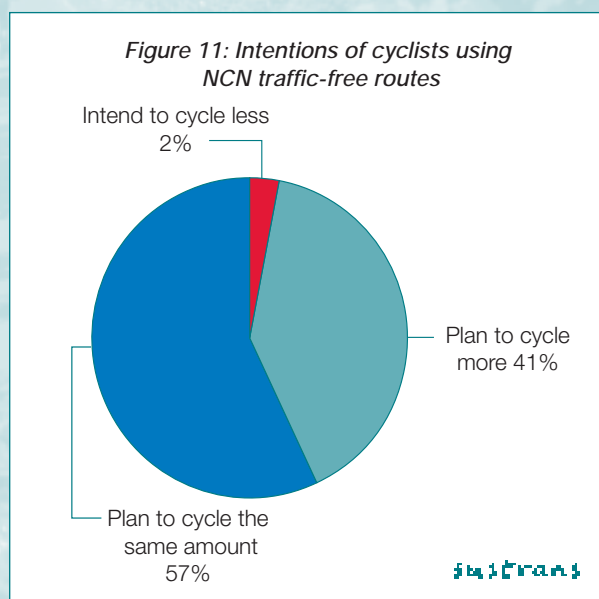
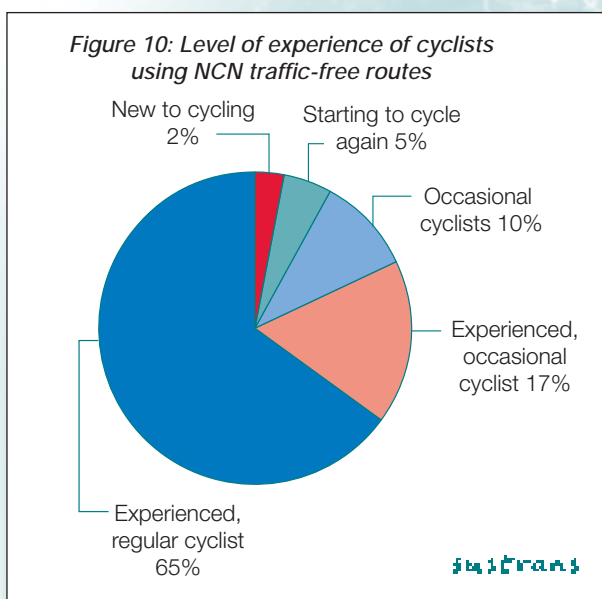
Doug Ridgeway

Enabling novice cyclists

- Novice cyclists⁸ represented 17% of the cyclists using traffic-free sections of the NCN (see Figure 10)
- The proportion of women cyclists who described themselves as novice was higher (23%) than men (15%)
- Rural routes tended to attract more novices, 20% of those surveyed on these routes, compared with 12% on urban routes
- Novice cyclists were more likely to use a car as part of their trip, 16% compared with only 8% of experienced cyclists. However this was lower than in past years (2000-2) where these levels were 23% and 9% respectively
- Novices were much less likely to be making utility trips (15%) than experienced cyclists (31%)

Encouraging more people to cycle more frequently

- Nearly all cyclists using traffic-free NCN routes said they planned to cycle more or the same amount in future, with 41% saying they planned to cycle more (see Figure 11)
- This growth effect was particularly strong among novice cyclists, of whom 59% said they planned to cycle more in the future, compared to 37% of experienced cyclists



⁸ Novice includes those new to cycling, those starting to cycle again and occasional cyclists.



SMALL IMPROVEMENTS MAKE A BIG DIFFERENCE

Some of the most significant growth in cycling and walking on the NCN was recorded at sites where specific projects have been carried out to complete or enhance continuity of NCN routes, or to improve access to the route.



Route completion at Quakers Yard, South Wales

Surveys were undertaken at Quakers Yard during 2000 and 2003. The east-west route has been present for some time, but the north-south route was completed between the two surveys. Overall use increased by 51% over this period. Almost 60% of users recorded on the route in 2003 were cycling, and most of the remainder were walking. The number of children using the route increased by 66% between the two survey periods. The proportion of trips on the route that are being made for utility purposes remains low, but has increased by 25%.



Improved accessibility at Queen Elizabeth Park, Grantham

Between the surveys, conducted in 2000 and 2003, a toucan crossing was installed at the entrance to the park, linking the existing route to a new segregated cycle route along the main Manthorpe Road. There was a subsequent 31% increase in the number of cyclists using the improved route and a 52% increase in the number of novice cyclists.



Skellingthorpe railway path, Lincoln

The railway path between Skellingthorpe and Lincoln provides a new link for cycling and walking in traffic-free conditions. The data from a continuous cycle counter shows that use quadrupled from a daily average of 24 users pre-and-during construction phases to 111 users daily once the path was completed.

THE WIDER BENEFITS OF THE NATIONAL CYCLE NETWORK

Promoting physically active travel

The NCN, in particular on its traffic-free sections, is now making a significant contribution to national targets on public health and physical activity.

- 69% of traffic-free route users reported increased levels of physical activity, of which 32% reported a large amount and 37% a small amount
- This reported increase was evenly spread between cyclists and pedestrians, with 71% and 67% respectively reporting increased levels of physical activity
- This was also the case between men and women, with 68% of men and 72% of women reporting increased levels of physical activity
- The reported increase in levels of physical activity was particularly high (78% of users) in wards where the Health Deprivation and Disability Index⁹ indicates poor levels of health



Wingate, County Durham

Reclamation of a disused railway line between Wingate and Station Town in County Durham has significantly increased levels of physical activity in a ward rated amongst the most deprived in the UK in terms of health conditions. The route provides a vital resource for people seeking to improve their health by cycling and walking; 83% of respondents to the survey said that the route had helped them to increase their levels of regular physical activity. Two of the factors identified as major influences on people's decisions to use the route were personal fitness (83%) and personal health (64%).

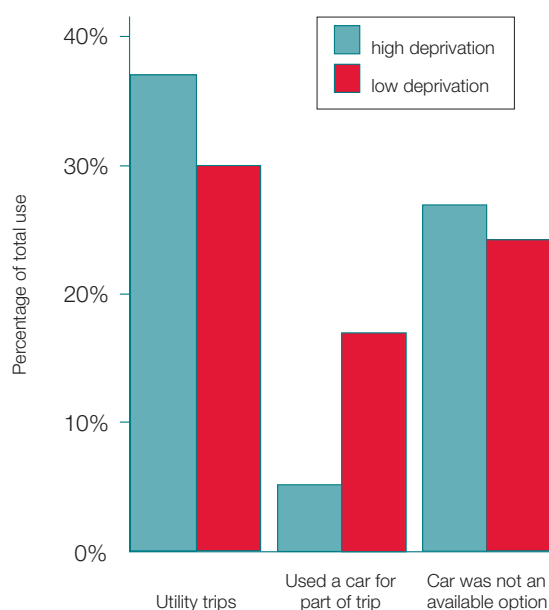
Improving accessibility for people without a car

- 17% of cyclists and 25% of pedestrians using traffic-free NCN routes live in households without a car

Benefiting deprived areas

- Surveys indicate the NCN is especially beneficial in deprived areas¹⁰ where traffic-free routes provide for higher proportions of utility trips and improved travel choices for those without access to a car (see Figure 12)

Figure 12: NCN use by area deprivation level



^{9, 10} DETR (2000). Indices of Deprivation

USE OF THE NATIONAL CYCLE NETWORK TO GROW A FURTHER 37% BY 2005

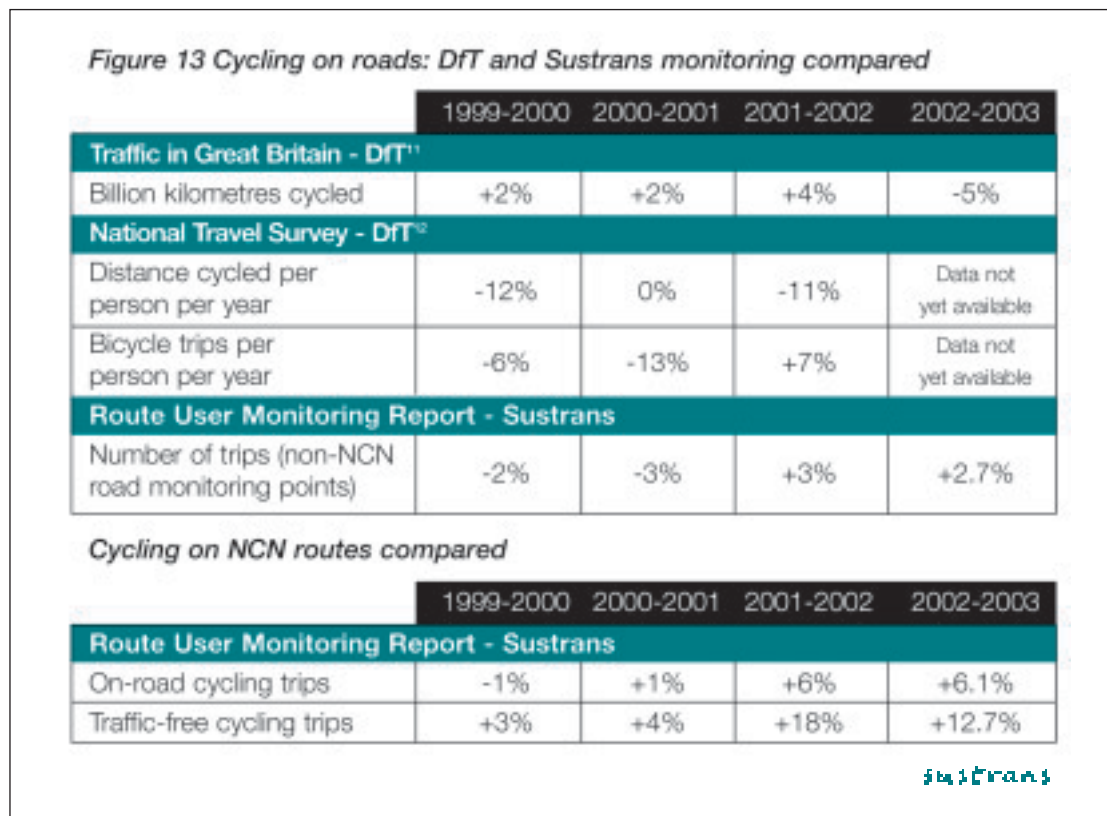
Recent trends suggest that use of the NCN will continue to grow at a faster rate than the Network itself. Although each route of the NCN will have a natural capacity, this level has not yet been reached anywhere.

- Since the Millennium opening of the NCN, the Network has been extended from 5,000 to 8,200 miles in 2003, an increase of 60%
- In the same period, the number of trips on the NCN has increased from 57 million to 126 million, an increase of 121%
- The number of cycling trips increased from 36 million to 77 million, an increase of 114%
- Of this growth, 25% was due to the underlying growth in cycling, i.e. growth on a like-for-like basis, irrespective of increases in the length of the NCN
- The remaining increase is attributable to improvements in the existing Network, and creation of better facilities for cycling in towns and cities across the UK
- Based on this rate of growth, the projected number of cycling trips in 2005, when the NCN will reach its 10,000 mile target, is 108 million
- Pedestrian trips will add a further 65 million trips bringing total projected use of the NCN in 2005 to 173 million trips, an increase of 37% on use in 2003

WORKING TO IMPROVE DATA ON CYCLING IN THE UK

Sustrans' Route User Monitoring Programme fills an important gap in national statistics on cycling. Government data on cycling are drawn from two sources: the National Travel Survey and the National Road Traffic Survey. There is little correlation between levels of cycle use suggested by household surveys (through the NTS) and cycle traffic observed by roadside counts. Both Government data sources exclude bicycle travel on traffic-free routes, shown by Sustrans' Route User Monitoring Programme to be the biggest source of growth in cycling in recent years.

Furthermore, Sustrans' monitoring of on-road (non-NCN) cycle traffic suggests a recent pattern of growth not shown by the National Road Traffic Survey. This suggests that Government statistics are not capturing the full extent of cycling in Britain, or the recent patterns of growth demonstrated by Sustrans' own monitoring programme. Sustrans is engaged in discussions with the Department for Transport (DfT) to identify ways in which the apparent shortcomings of national travel data sources in terms of cycling and walking can be addressed most effectively.



¹¹ Department for Transport (2004). Traffic in Great Britain Q1, 2004. Statistics Bulletin (04) 6

¹² Estimates calculated from: Department for Transport (2004). National Travel Survey 2002

METHODOLOGY

The information contained in this report is derived from two principal sources: automatic bicycle counters predominantly owned and operated by local authorities on NCN and other routes; and route user surveys undertaken on the NCN by Sustrans in partnership with local authorities. Data from other sources has been used, and these are acknowledged in the text.

Automatic bicycle counters

Sustrans has established a database of continuous counts to observe trends over time. To produce comparative figures for 2002 to 2003, a sample of 153 sites was used. Sites are classified according to whether they are on NCN or non-NCN routes, whether they are on traffic-free or road routes, and whether they are in urban or rural areas. Only sites with a minimum of nine-months data coverage per year during 2002 and 2003 were included in this sample. Any fragmentation of the data was patched based on patterns observed at the same site in other years. It is hoped that future development work will produce an increase in the number of sites included in the sample, greater regional and national representation in a consistent and replicable sample, and enhanced stratification within the sample of count sites.

Route user surveys

Sustrans has a tried and tested approach to collecting data about route users. Each survey is undertaken on a consistent basis (one weekday in term-time, one weekend day during term-time, one weekday during school holiday periods, and one weekend day during school holiday periods - from 0700 to 1900 on each day), allowing a high degree of comparability. Most surveys are conducted in the late summer and early autumn. Route users are interviewed on a next-to-pass basis. Children are not interviewed. Manual counts of all users (including children) are conducted concurrently with the user interviews.

During 2003, route user surveys were conducted at 36 locations, on traffic-free sections of the NCN. The net sample of 4,847 people is representative of users of traffic-free NCN routes, but not of the Network as a whole. Data for 2000-02 were derived from surveys at a total of 71 mainly traffic-free sites across the NCN.

Sustrans' user monitoring techniques are subject to continued refinement. Minor variations against previous reports are due to these methodological improvements.

Sustrans' would like to thank all partners who have contributed data or participated in the route user survey programme.

ABOUT SUSTRANS

Sustrans, the sustainable transport charity, works on practical projects to help improve people's quality of life by:

- Increasing the share of personal trips made by foot, cycle and public transport
- Reducing the negative social and environmental impacts of motorised transport
- Increasing equity of access to local places and services

Further information

For further details about Sustrans' Research and Monitoring Unit contact:

Sustrans' Research and Monitoring Unit,
37 Side, Quayside,
Newcastle NE1 3JE,
monitoring@sustrans.org.uk,
0191 261 6160

For additional copies of this report, please download from:

www.sustrans.org.uk

or contact:

National Cycle Network Centre, 2 Cathedral Square,
College Green,
Bristol BS1 5DD

Information line:

0845 113 0065
info@sustrans.org.uk

